correspond to the target area above them in the Z-direction. See for instance, page 16, lines 3-5. Given the description of the many embodiments for altering layers below the bodyside layer, Applicants assert that the invention is clearly described, and there is clear antecedent basis for the language in the claims. By altering the fluid handling properties of layers below the target area of the bodyside liner layer, the fluid handling properties in and outside the target areas of personal care products are affected. Support for the current language of the claims may be found at page 4, lines 23-25, page 14, lines 15-22.

Some of the claims have also been amended in this regard, to further address the Examiner's concerns. Applicants believe that these remarks and amendments should also address the Examiner's objection for failing to provide antecedent basis for the language "in the target area" , found in the claims.

By way of the same Office Action, the Examiner has objected to the drawings, or the lack thereof, as they have not been presented for showing the features of the claims. In order to address the Examiner's concerns, simplified Figures showing the components described in the sequence described, have been provided for the Examiner's inspection. New items and numbers are shown in red as being changes from what was originally submitted. Applicants submit that by submission of the drawings, no new matter has been introduced into the case. Rather, support for the Figures may be found in the specification at the following pages; page 7, lines 18-25, page 9, lines 12-15, page 11, lines 3-5, page 14, lines 11-14. In addition to the introduction of four new figures, the corresponding amendments to the Specification have been made. For instance, a Brief Description of the Drawings has been added, and corresponding numerical references have been added in the appropriate locations in the Specification. Should the Examiner desire to discuss these Figures further, she is encouraged to contact the undersigned at the number below. Should the Examiner accept the Figures, Applicants will provide formal drawings shortly thereafter.

By way of the same Office Action, the Examiner has objected to the use of both capital letters and the trademark symbol to identify trademarks. Applicants have amended the relevant paragraphs in the Specification to include only capital letters in identifying trademarks.

Finally, Applicants have corrected obvious typographical errors to the extent that they could be identified. With respect to these corrections, Applicants would assert that no new matter has been introduced into the Application.

By way of the same Office Action, the Examiner has rejected claims 1, 4, 5, and 7 under 35 USC 102(b) as being anticipated by Steger et al. This rejection is respectfully **traversed** to the extent that it may apply to the currently presented claims, for the following reasons. Steger teaches the use of multiple superabsorbent materials, including encapsulated superabsorbent materials. In

particular, the Steger reference teaches the use of encapsulated superabsorbent materials in the "wetting region" and non-encapsulated superabsorbent materials (conventional superabsorbent materials) in areas outside the wetting region. It is not believed that Steger teaches slower movement of fluid in the Z direction through the target area compared to outside the target area. Steger merely teaches "delayed storage capacity" through the mechanism of encapsulated superabsorbent materials. Essentially, the Steger reference, doesn't delay fluid movement, but provides for freed up capacity at a later time, in order to accommodate numerous insults. Such material, according to Steger, will not prevent wicking of fluid, and is the "fluid wicking layer". Further, Steger also teaches the use of an encapsulated superabsorbent material in a bottom layer. The reference specifically describes a two layer absorbent body including an upper fluid-acquisition layer and a lower fluid-storing and fluid wicking layer. Such a layer arrangement is not indicative of slower fluid transfer in the Z-direction in the target area, as defined by the language of current claim 1.

The Examiner has asserted that the Steger acquisition layer 11 is the distribution layer of the current claims. The Steger layer 11 will be able to swell to retain fluid, but will not block or prevent the dispersion of fluid. As can be seen in Applicants' specification, Applicants' distribution layer may be used to distribute liquid to other layers, but may include materials to delay the Z-directional transfer of liquids, such as materials which make the distribution layer in the target area hydrophobic (Page 15, lines 15-21). Finally, the Examiner has asserted that the encapsulating material in the Steger reference is soluble binder. The soluble binder in the claims of the current invention help provide mechanical integrity and stabilization (Page 13, lines 9-18), and they are applied to the core or distribution layer below the target area to block pores (Page 15, lines 7-14), not to encapsulate a superabsorbent material. For the above reasons, Applicants most respectfully request that the rejection be withdrawn.

By way of the same Office Action, the Examiner rejected claims 1, 3, and 11 under 35 USC 102(b) as being anticipated by Faulks et al. This rejection is respectfully **traversed** to the extent that it may apply to the currently presented claim, for the following reasons. The Faulks et al. reference is directed to an absorbent structure comprising a fibrous matrix having dual Z-directional gradients, that is where the concentration of high absorbency material decreases in the Z-direction from the closest body material surface, and the density of the fibrous matrix increases to the farthest body material surface. Applicants do not believe that the reference specifically describes slower movement of fluid in a Z-direction in a target area, when compared to outside a target area. Also, there does not appear to be any meaningful distinction between these two areas. While Figure 5 illustrates a first fibrous layer placed in a target area, it describes the higher density material being located below it and all around it. Further, the reference describes the placement of

higher density materials below lower density materials, as opposed to specifically in a target area for the other embodiments. For the above reasons, Applicants most respectfully request that the rejection be withdrawn.

By way of the same Office Action, the Examiner has rejected claims 1, 2 and 11 under 35 USC 102(b) as being anticipated by Nishino. This rejection is respectfully **traversed** to the extent that it may apply to the currently presented claim, for the following reasons. The Nishino reference is directed to a diaper with reduced flowback of liquid from the crust layer to the surface layer. The reference does not appear to teach slowing fluid in a Z-direction through a target area as compared to a non target area. Applicant therefore most respectfully request that the rejection be withdrawn.

Applicants therefore assert that the claims are in condition for allowance.

However, should the Examiner feel that issues remain unresolved, she is encouraged to call the undersigned at:(770)-587-8646.

Please charge any prosecutional fees which are due to Kimberly-Clark Worldwide, Inc. deposit account number 11-0875.

Respectfully submitted,
M.A. DALEY ET AL.

By: _____
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CERTIFICATE OF MAILING

I, Steven D. Flack, hereby certify that on January 15, 2003 this document is being deposited with the United States Postal Service as first-class mail, postage prepaid, in an envelope addressed to: Assistant Commissioner for Patents, Washington, D.C. 20231.

By: _____
Steven D. Flack

Version with Markings to Show Changes Made

In the Specification:

On page 4, following the Summary of the Invention on lines 6-25, the following new paragraphs have been added:

BRIEF DESCRIPTION OF THE DRAWINGS

Figure 1 is a top view of a feminine hygiene product of the invention.

Figure 2a is a cross-sectional view of the feminine hygiene product of Figure 1 taken along lines 20-20.

Figure 2b is a cross-sectional view of an alternative embodiment of the feminine hygiene product of Figure 1.

Figure 3 is a top view of another personal care absorbent article of the invention, and in particular a diaper.

On page 9, lines 12-15 have been replaced with the following paragraph:

This invention relates to personal care absorbent articles such as disposable sanitary napkins (as seen in Figures 1, 2a and 2b), diapers (as seen in Figure 3), incontinence garments, and the like. These products typically have a liquid permeable body side liner, a liquid impervious baffle, and an absorbent core between the liner and baffle. Figure 1 specifically illustrates a top view of a feminine hygiene product 10 in accordance with the invention. A cross- sectional view of this product along lines 20-20 is shown in Figure 2a, and a cross-sectional view of an alternative embodiment of this product is shown in Figure 2b. As can be seen in Figure 1, an oblong-shaped target area 12 (shown in phantom) is situated along the top bodyside surface of the product. In Figure 3, a top view of a diaper 40 is shown with an oblong Target area 42. As can be seen in Figure 2a, the feminine hygiene product 10 includes a body side liner 14, an absorbent core 16,

and a liquid impervious baffle 18, with the layers positioned along the Z direction of the product.

On page 11, lines 3-14 have been replaced with the following paragraph:

Distribution layers also are included in many personal care products. Distribution layers are usually located next to the core and accept liquid from the surge or liner layer and distribute it to other areas of the core using capillary action. For instance, as can be seen in Figure 2b, a cross sectional view of a feminine hygiene product 22 is illustrated showing a liner layer 24, a distribution layer 26, a core layer 28 and a baffle layer 30. Optional transfer delay layers are also located between the distribution layer and core and act to distribute liquid in a more passive manner than distribution layers, i.e., by blocking the Z – directional pathways to the core, detouring fluids into the X – Y plane. One way in which liquid may be delayed or distributed uses a liquid responsive film layer (e.g., PVOH film), partially wrapped with a fluid retention material (fluff/SAM). A surge material is added to the circumference of the film only in the area not wrapped with retention material. The film will resist fluid penetration until the liquid responsive film becomes soluble and so acts to distribute fluid along its length. In these manners, rather than absorbing liquid exclusively in the vicinity of the target area, more of the absorbent core is used.

On page 11, lines 15-24 have been replaced with the following paragraph:

As mentioned above, the materials of this invention may be made from synthetic polymers, natural fibers, pulps and superabsorbents or combinations thereof. Synthetic fibers include those made from polyolefins, polyamides, polyesters, rayon, acrylics, superabsorbents, LYOCELL[®] regenerated cellulose and any other suitable synthetic fibers known to those skilled in the art. Many polyolefins are available for fiber production, for example polyethylenes such as Dow Chemical's ASPUN[®]6811A [liner] linear low density polyethylene, 2553 LLDPE and 25355 and 12350 high density polyethylene are such suitable polymers. The polyethylenes have melt indices,

respectively, of about 26, 40, 25 and 12. Fiber forming polypropylenes include Exxon Chemical Company's ESCORENE[®] PD 3445 polypropylene and Montell Chemical Co.'s PF304. Other polyolefins are also available.

On page 12, lines 20-25, page 13, lines 1-8 have been replaced with the following paragraph:

Superabsorbents that may be useful in the present inventions can be chosen from classes based on chemical structure as well as physical form. Superabsorbents may be based on chemistries that include but are not limited to acrylic acid, iso-butylene/maleic anhydride, polyethylene oxide, carboxy-methyl cellulose, poly vinyl pyrrollidone, and poly vinyl alcohol. The superabsorbents may range in rate from slow to fast. The superabsorbents may be in the form of foams, macroporous or microporous particles, fibers, sheets or films, and may have fuzzy or fibrous coatings or morphology. An exemplary superabsorbent may be obtained from Stockhausen, Inc and is designated as FAVOR[®] 880. Other examples of superabsorbents are in fiber form (SAF), obtained from Camelot, which are designated recognized as FIBERDRI[®] 1241 and FIBERDRI[®] 1161. Superabsorbents obtained from Technical Absorbents, Ltd. are designated OASIS[®] 101 and OASIS[®] 111. Another Example included in these types of superabsorbents is obtained from Chemtall Inc. and is designated FLOSORB[®] 60 Lady. Another Example included in these types of superabsorbents is obtained from Sumitomo Seika and is recognized as SA60N Type 2.

On page 13, lines 9-18 have been replaced with the following paragraph:

Binders may also be used in structures to help provide mechanical integrity and stabilization. Binders include fiberous, liquid or other binder means which may thermally activated. Preferred fibers for inclusion are those having a relative melting point such as polyolefin fibers. Lower melting point polymers provide the ability to bond nonwoven fabric together at fiber crossover

points upon the application of heat. In addition, fibers having a lower melting polymer, like conjugate and biconstituent fibers are suitable for use as binders. Exemplary binder fibers include conjugate fibers of polyolefins, polyamides and polyesters like the sheath core conjugate fibers available from KoSa Inc. (Charlotte, North Carolina) under the designation T-255 and T-256. A suitable liquid binder is KYMENE[®] 557LX available from Hercules Inc.

On page 15, lines 15-21 have been replaced with the following paragraph:

A hydrophobic treatment may be applied to the core or distribution layer below the target area to delay fluid entry, or, conversely, a hydrophilic treatment may be applied to the absorbent core or distribution layer surface outside the target area. Suitable treatments include AHCOVEL[®] Base N-62 surfactant, which is a blend of about 50 weight percent sorbitan mono-oleate and about 50 weight percent hydrogenated ethoxylated castor oil at 100 percent solids supplied by ICI Chemicals, GLUCOPON[®] UP-220, an alkyl polyglycoside with a C8-10 chain at 60 percent solids, and many others known to those skilled in the art.

On page 15, lines 22-25, page 16, lines 1-5 have been replaced with the following paragraph:

One example of a material according to this invention is one in which the lower surface of the distribution material is treated with a solution of AHCOVEL[®] surfactant in an amount from a positive amount to 0.1 weight percent. This may be applied by methods known in the art in an area outside the target area so that liquid movement in the Z – direction is enhanced. Another example of a material according to this invention is one having a concentration of superabsorbent in the target area of the absorbent core of 10 to 50 percent greater than the surrounding area. Still another example is one having a compressed area in the absorbent core, corresponding to the target area, which results in a density from 10 to 50 percent greater than the uncompressed absorbent core.

In the Abstract on Page 19, Lines 3-14 have been replaced with the following paragraph:

[There is provided a] A personal care absorbent article [having] includes an absorbent core that has been treated in a manner, or is made from materials, that inhibit the transfer of liquid through the structure in and below the target area. The distribution layer above the core could likewise be treated in a manner that discourages Z-directional fluid movement. A separate transfer delay layer is avoided, thereby simplifying manufacture and reducing costs.

[A number of transfer delay treatments are possible. These include increasing the density of the upper layer of the absorbent core or lower layer of the distribution layer below the target area, making the absorbent core below the target area of rich in superabsorbent, making all or part of the core below the target area from very slow absorbing superabsorbents, including a soluble binder in the core below the target area, treating the core or distribution layer below the target area with a hydrophobic treatment, or combinations of these methods.]

In the Claims:

2. (Amended) The personal care article of claim 1 wherein an absorbent core has a higher density in [the] an area corresponding to ~~the~~ target area than the absorbent core outside the target area.

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11. (Amended) A personal care article having an absorbent core with a higher density in [the] an area corresponding to the target area than the absorbent core has outside the target area.